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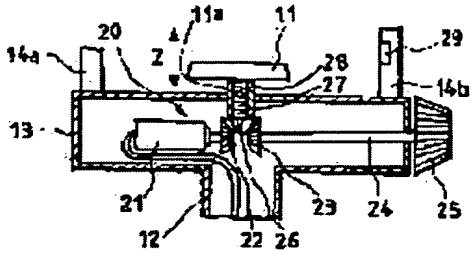
(54) OPHTHALMOLOGIC APPARATUS

(57)Abstract:
PURPOSE: To provide the ophthalmologic apparatus capable of facilitating initial setting before the start of optometry and shortening the optometric time.
CONSTITUTION: This ophthalmologic apparatus is provided with a jaw rest for fixing the testee's jaw on a body having an optometric function and has a position information transmitting means for transmitting the information on the height position of the jaw rest 11 meeting the testee with respect to the body of the jaw rest 11 and a jaw rest driving means 20 for displacing the jaw rest 11 to the height position corresponding to the information on the height position of the jaw rest 11 in accordance with the information on the height position from the position information transmitting means. The position of the jaw rest 11 before the testee places his jaw on the jaw rest 11 is automatically set in an adequate position by the constitution, by which the initial setting is facilitated and the optometric time is shortened.



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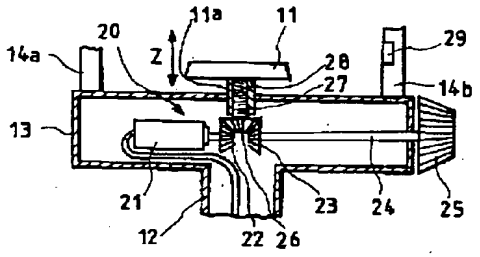
(54)【発明の名称】　眼科装置

(57)【要約】

【目的】　本発明は、検眼開始前の初期設定の容易化，検眼時間の短縮化を図ることが可能な検眼装置を提供する。

【構成】　本発明は、検眼機能を有する本体に対して被検者の顔を固定する顎受けを備えた眼科装置において、被検者に応じた顎受け１１の本体に対する高さ位置情報を送出する位置情報送出手段と、この位置情報送出手段からの高さ位置情報を基に前記顎受け１１を高さ位置情報に対応する高さ位置に変位する顎受け駆動手段２０とを有するものである。この構成により、被検者が顎を顎受け１１に乗せる前の顎受け１１の位置を自動的に適切な位置に設定でき、初期設定の容易化，検眼時間の短縮化を図ることが可能となる。



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【特許請求の範囲】

【請求項1】　検眼機能を有する本体に対して被検者の顔を固定する顎受けを備えた眼科装置において、被検者に応じた顎受けの本体に対する高さ位置情報を送出する位置情報送出手段と、この位置情報送出手段からの高さ位置情報を基に前記顎受けを高さ位置情報に対応する高さ位置に変位する顎受け駆動手段とを有することを特徴とする眼科装置。

【請求項2】　前記位置情報送出手段から送出される高さ位置情報は，大人情報，小人情報，被検者の年令情報，個人別の顔寸法情報の中から選ばれるものである請求項1記載の眼科装置。

【発明の詳細な説明】

【0001】

【産業上の利用分野】本発明は、眼科装置に関し、より詳しくは、眼底カメラ，オートレフラクトメータ等の被検者の顔固定用の顎受けを具備する眼科装置に関する。

【0002】

【従来の技術】この種の眼科装置においては、検眼機能を有する本体を垂直方向に上下動可能とするとともに、被検者の眼固定用の顎受けを操作ノブの手動による回転で上下動させ、被検者の眼が本体に設けた対物レンズに対峙するように被検者の顎の位置を調整するのが通例である。

【0003】即ち、被検者の顎をまず顎受けに乗せ、この被検者の眼を本体に対峙させた状態で本体を上下動させて被検者の眼の角膜頂点の高さを対物レンズの高さに合わせる作業を行う。この場合、本体の上下ストロークの範囲内で被検者の眼の角膜頂点と対物レンズとを合せられないときには、操作ノブを手動で操作し顎受けの高さを上下動させることで、最終的に角膜頂点と対物レンズとの高さを一致させるようにしている。

【0004】

【発明が解決しようとする課題】しかしながら、上述した従来装置の場合、被検者が顎を顎受けに乗せる前の顎受けの位置が、極端に低かったり高かったりした場合、本体の上下ストロークの範囲内での高さ調整では不十分な場合が多発し、かかる場合には被検者に一旦顎受けから顎を離してもらい、操作ノブを手動で操作し顎受けの高さを適切な位置まで調節するという余分な作業が必要となり、検眼開始前の初期設定が煩雑になるとともに、被検者の拘束時間も長くなり検眼時間の短縮化を図れないという問題があった。

【0005】そこで、本発明は、被検者が顎を顎受けに乗せる前の顎受けの位置を自動的に適切な位置に設定でき、検眼開始前の初期設定の容易化、検眼時間の短縮化を図ることが可能な検眼装置を提供することを目的とするものである。

【0006】

【課題を解決するための手段】請求項1記載の発明は、

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検眼機能を有する本体に対して被検者の顔を固定する顎受けを備えた眼科装置において，被検者に応じた顎受けの本体に対する高さ位置情報を送出する位置情報送出手段と、この位置情報送出手段からの高さ位置情報を基に前記顎受けを高さ位置情報に対応する高さ位置に変位する顎受け駆動手段とを有するものである。

【0007】請求項2記載の発明は、前記位置情報送出手段から送出される高さ位置情報は，大人情報，小人情報，被検者の年令情報，個人別の顔寸法情報の中から選ばれるようにしたものである。

【0008】

【作用】上述した構成の眼科装置の作用を以下に説明する。

【0009】この眼科装置の位置情報送出手段は、種々の被検者に応じた顎受けの本体に対する高さ位置情報を送出する。顎受け駆動手段は、位置情報送出手段からの高さ位置情報を基に前記顎受けを高さ位置情報に対応する高さ位置に変位する。

【0010】これにより、被検者が顎を顎受けに乗せる前の顎受けの位置を自動的に適切な位置に設定でき、検眼開始前の初期設定の容易化，検眼時間の短縮化を図ることが可能となる。

【0011】また、前記高さ位置情報を、大人情報，小人情報，被検者の年令情報，個人別の顔寸法情報の中から選ぶことにより、大人，小人の別，被検者の年令別、個人，個人の顔寸法別に各々顎受けの位置を自動的に適切な位置に設定でき、種々の被検者に応じたきめの細かい顎受けの位置設定を行うことが可能となる。

【0012】

【実施例】以下に本発明の実施例を詳細に説明する。

【0013】図1乃至図3に示す眼科装置1は、直方体状の基台2と、この基台2に対し操作ハンドル3の操作により図1に示すX，Y方向に移動可能に取り付けた本体基部4と、この本体基部4に対し操作ハンドル3の回転操作でZ方向（垂直方向）に上下動可能に取り付けた例えばオートレフラクトメータのような検眼機能を有する本体5と、前記本体基部4に搭載した詳細は後述する位置情報送出手段8を構成する操作パネル6と、本体基部4に接続した被検者の識別（ID）カードCの情報を読み取る位置情報送出手段8を構成するカードリーダ7とを具備している。識別カードCには、当該被検者の年令情報、顔寸法情報（例えば、眼の角膜頂点から顎の下側までの寸法情報等）が例えば磁気情報の形態で記録されている。

【0014】また、前記本体5の一方の端面側には、図3に示すように、被検者の眼に対峙する対物レンズ9aを装着した対物鏡筒9を設けている。

【0015】さらに、前記眼科装置1は、本体5の一方の端面の前方に被検者の顎を載置する顎受け11を配置している。即ち、前記基台2の一方の端面に側面L状の

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顎受け支持体１２を取り付け、この顎受け支持体１２の上部角筒１３の中央部において顎受け１１をＺ方向に上下動可能に支持するとともに、上部角筒１３の両端部からＺ方向に突設した一対の支柱１４ａ，１４ｂ間に帯状の被検者用の額当て１５を架設している。

【００１６】前記上部角筒１３には、顎受け１１をＺ方向に駆動し被検者に応じた高さ位置に位置決めする顎受け駆動手段２０を設けている。

【００１７】この顎受け駆動手段２０は、図４に示すように、原動軸を水平に配置した顎受けモータ（例えばパルスモータ）２１と、この顎受けモータ２１の原動軸に取り付けた第１の傘歯歯車２２と、この第１の傘歯歯車２２に対して一定の間隔を隔てて対向配置するとともに、連結軸２４を介して上部角筒１３の外側に設けた手動ハンドル２５に連結した第２の傘歯歯車２３と、第１，第２の傘歯歯車２２，２３に螺合する従動傘歯歯車２６及びこの従動傘歯歯車２６から上方に突設したねじ体２７からなる従動回転体２８と、前記顎受け１１の下面から下方に突設され内周部に設けたねじ部を前記ねじ体２７に螺合した係合突部１１ａと、前記支柱１４ｂに顎受け１１に対向する状態で取り付けたセンサ（例えば赤外線センサ）２９とを具備している。

【００１８】前記操作パネル６は、図５に拡大して示すように、大人キー，小人キー，人数設定キー，プリントキー等を具備し、大人キーが押下されたときには大人の平均的な眼の角膜頂点から顎の下側までの寸法Ｌ1 を示す高さ位置情報を送出し、小人キーが押下されたときには小人の平均的な眼の角膜頂点から顎の下側までの寸法Ｌ2 を示す高さ位置情報を送出し、人数設定キーの押下により例えば３人，５人等の人数情報を送出するようになっている。

【００１９】尚、前記額当て１５は、一対の支柱１４ａ，１４ｂに対して連結環１４ｃ，１４ｄを介して取り付けてあり、また、一方の連結環１４ｃに取り付けた微動ハンドル３５を操作することで、額当て１５をＺ方向に微調整可能となっている。

【００２０】図６は、検眼装置１の制御系を示すものであり、動作プログラムを格納したプログラムメモリ３２と、全体の制御を行う制御部３１とからなる制御手段３０を具備し、前記制御部３１に前記操作パネル６，カードリーダ７を接続している。

【００２１】また、前記制御部３１により、前記顎受けモータ２１，センサ２９の動作制御行うようになっている。

【００２２】次に、検眼装置１の動作を被検者に応じた顎受け１１の高さ位置の設定を主にし、かつ、図７をも参照して説明する。

【００２３】例えば、前記操作パネル６の大人キーを押下すると、操作パネル６は大人の平均的な眼の角膜頂点から顎の下側までの寸法Ｌ1 を示す高さ位置情報を制御

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部３１に送る。

【００２４】制御部３１は、寸法Ｌ1 を示す高さ位置情報を基に、前記顎受けモータ２１を駆動し、顎受け１１の顎浮け面と前記対物レンズ９ａの中心部とが図７に示すように寸法Ｌ1 となるように駆動する。即ち、顎受けモータ２１の回転力は、第１の傘歯歯車２２，従動傘歯歯車２６を介してねじ体２７に伝達し、このねじ体２７を回転駆動することで、顎受け１１をＺ方向に変位し、顎受け１１の顎浮け面と前記対物レンズ９ａの中心部とが寸法Ｌ1 となるように設定する。このとき、前記センサ２９は顎受け１１の顎浮け面を検知し、このセンサ２９の検知結果に基づく制御部３１の制御で顎受けモータ２１が停止し、顎受け１１が大人の平均的な高さ位置Ｐ１に位置決めされる。

【００２５】一方、前記操作パネル６の小人キーを押下すると、操作パネル６は大人の平均的な眼の角膜頂点から顎の下側までの寸法Ｌ1 を示す高さ位置情報を制御部３１に送る。

【００２６】この後は、上述した場合と同様な動作の基に顎受け１１が小人の平均的な高さ位置Ｐ2 に位置決めされる。

【００２７】上述したような顎受け１１の位置決め動作において、前記操作パネル６の人数設定キーにより、例えば大人３人，小人１人，大人４人の順で検眼を行う多数の被検者の大人，小人を指定すると、上述した場合と同様な動作の基に顎受け１１が大人３人については大人の平均的な高さ位置Ｐ1 に位置決めされ、次に小人１人については小人の平均的な高さ位置Ｐ2 に位置決めされ、さらに、大人４人にさいては大人の平均的な高さ位置Ｐ1 に位置決めされる。

【００２８】また、上述した操作とは別に、ある被検者の識別カードＣをカードリーダ７に装着した場合には、このカードリーダ７はこの識別カードＣに記録している当該被検者の年令情報、顔寸法情報を読取りこれらを高さ位置情報として制御部３１に送る。この後は、上述した場合と同様な動作の基に顎受け１１が当該被検者の平均的な高さ位置Ｐ1 又はＰ2 に位置決めされる。

【００２９】このような動作により、被検者が顎を顎受け１１に乗せる前のこの顎受け１１の位置を自動的に適切な位置に設定でき、検眼開始前の初期設定の容易化，検眼時間の短縮化を図ることが可能となる。

【００３０】また、前記高さ位置情報を、大人情報，小人情報，被検者の年令情報，個人別の顔寸法情報の中から選ぶことにより、大人，小人の別、被検者の年令別，個人、個人の顔寸法別に各々顎受け１１の位置を自動的に適切な位置に設定でき、種々の被検者に応じたきめの細かい顎受けの位置設定を行うことが可能となる。

【００３１】本発明は、上述した実施例の他、その要旨の範囲内で種々の変形が可能である。

【００３２】例えば、前記額当て１５の額との当接面

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に、タッチセンサを取り付け、最初に被検者の額が額当て１５に接触していることを検知し、この検知結果に基づき前記顎受け駆動手段２０を動作して予め下方に下げておいた顎受け１１を当該被検者の顎に当接するまで変位させるようにすることも可能である。

【００３３】このようにすることで、被検者に無理な姿勢を強いることなく、顎受け１１を最適位置に設定できる。

【００３４】

【発明の効果】以上詳述した本発明によれば、上述した構成としたので、被検者が顎を顎受けに乗せる前の顎受けの位置を自動的に適切な位置に設定でき、検眼開始前の初期設定の容易化，検眼時間の短縮化を図ることが可能な眼科装置を提供できる。

【００３５】また、前記高さ位置情報を、大人情報，小人情報，被検者の年令情報，個人別の顔寸法情報の中から選ぶことにより、大人，小人の別、被検者の年令別、個人、個人の顔寸法別に各々顎受けの位置を自動的に適切な位置に設定でき、種々の被検者に応じたきめの細かい顎受けの位置設定を行うことが可能な眼科装置を提供できる。

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【図面の簡単な説明】

【図１】本発明の実施例装置の平面図

【図２】本発明の実施例装置の正面図

【図３】本発明の実施例装置の側面図

【図４】本発明の実施例装置における顎受け駆動手段を示す拡大断面図

【図５】本発明の実施例装置における操作パネルの拡大図

【図６】本発明の実施例装置の制御系を示すブロック図

【図７】本発明の実施例装置の動作説明図

【符号の説明】

１　眼科装置

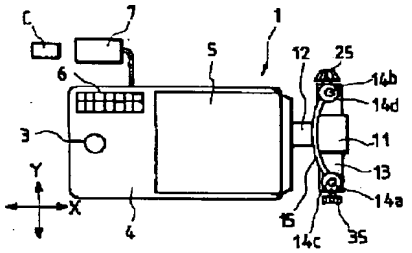
５　本体

８　位置情報送出手段

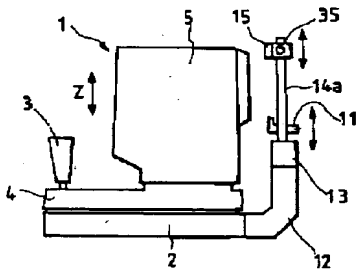
１１　顎受け

２０　顎受け駆動手段

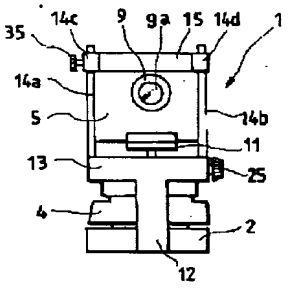
【図１】



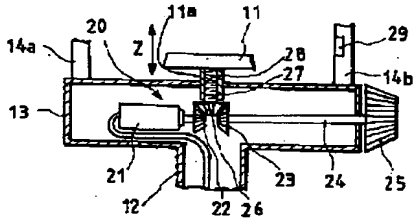
【図２】



【図３】



【図４】



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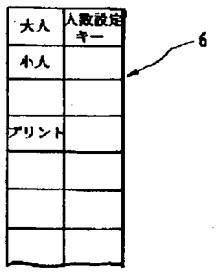

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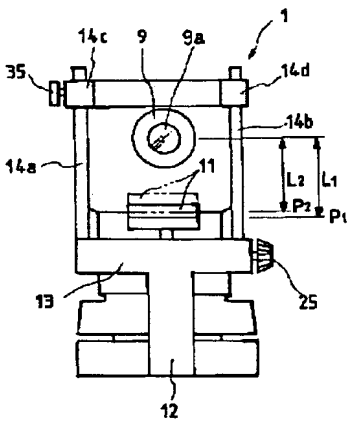

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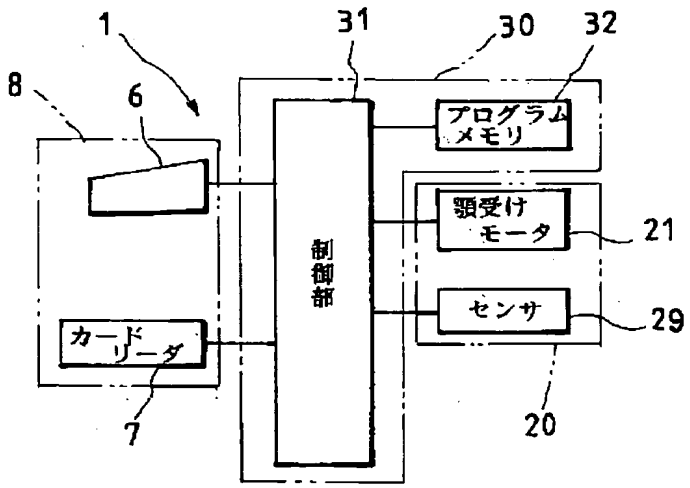

PATENT ABSTRACTS OF JAPAN

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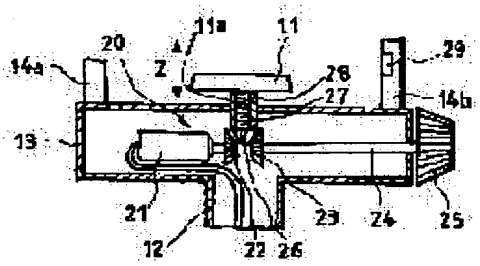
(72)Inventor : OGUSHI HIROAKI
WATANABE KENICHI

(54) OPHTHALMOLOGIC APPARATUS

(57)Abstract:
PURPOSE: To provide the ophthalmologic apparatus capable of facilitating initial setting before the start of optometry and shortening the optometric time.
CONSTITUTION: This ophthalmologic apparatus is provided with a jaw rest for fixing the testee's jaw on a body having an optometric function and has a position information transmitting means for transmitting the information on the height position of the jaw rest 11 meeting the testee with respect to the body of the jaw rest 11 and a jaw rest driving means 20 for displacing the jaw rest 11 to the height position corresponding to the information on the height position of the jaw rest 11 in accordance with the information on the height position from the position information transmitting means. The position of the jaw rest 11 before the testee places his jaw on the jaw rest 11 is automatically set in an adequate position by the constitution, by which the initial setting is facilitated and the optometric time is shortened.



LEGAL STATUS

[Date of request for examination]	21.04.2000
[Date of sending the examiner's decision of rejection]	
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[Date of final disposal for application]	
[Patent number]	3319525
[Date of registration]	21.06.2002
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[Date of requesting appeal against examiner's decision of rejection]	
[Date of extinction of right]	

* NOTICES *

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CLAIMS

[Claim(s)]
[Claim 1] Ophthalmology equipment equipped with the jaw receptacle which is characterized by providing the following and which fixes a **-ed person's face to the main part which has an eye examination function A positional information sending-out means to send out the height positional information to the main part of the jaw receptacle according to the subject Jaw receptacle driving means which displace the aforementioned jaw receptacle in the height position corresponding to height positional information based on the height positional information from this positional information sending-out means
[Claim 2] The height positional information sent out from the aforementioned positional information sending-out means is ophthalmology equipment according to claim 1 which is what is chosen from adult information, small humanity news, the age information on the subject, and the face size information according to individual.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application] this invention relates to the ophthalmology equipment which possesses the jaw receptacle for face fixation of subject, such as a fundus camera and auto reflex RAKUTO meter, in more detail about ophthalmology equipment.
[0002]
[Description of the Prior Art] In this kind of ophthalmology equipment, while enabling perpendicularly vertical movement of the main part which has an optometry function, usually adjusts the position of the jaw of the subject so that face to face may be stood against the objective lens which the jaw receptacle for eye fixation of the subject was moved up and down by rotation by the hand control of an operating knob, and the eye of the subject prepared in the main part.
[0003] That is, the jaw of the subject is first put on a jaw receptacle, and the work which a main part is moved up and down where the eye of this subject is confronted with a main part, and doubles the height of the vertex-corneae point of the eye of the subject with the height of an objective lens is done. In this case, when the vertex-corneae point and objective lens of an eye of the subject cannot be set within the limits of the vertical stroke of a main part, it is made to make the height of a vertex-corneae point and an objective lens in agreement by operating an operating knob manually and moving the height of a jaw receptacle up and down finally.
[0004]
[Problem(s) to be Solved by the Invention] In the case of equipment, however, the position of the jaw receptacle before the subject puts a jaw on a jaw receptacle conventionally which was mentioned above When low or high, the cases where the height adjustment in within the limits of a vertical stroke of a main part is inadequate occur frequently. While having the subject once separate a jaw from a jaw receptacle in this case, and operating an operating knob manually, the excessive work of adjusting the height of a jaw receptacle to a suitable position being needed and initial setting before an optometry start becoming complicated The binding hour of the subject also became long and there was a problem that shortening of optometry time could not be attained.
[0005] Then, this invention can set automatically the position of the jaw receptacle before the subject puts a jaw on a jaw receptacle as a suitable position, and aims at offering the optometry equipment which can attain shortening of easy-izing of initial setting before an optometry start, and optometry time.
[0006]
[Means for Solving the Problem] Invention according to claim 1 has a positional information sending-out means to send out the height positional information to the main part of the jaw receptacle according to the subject, and the jaw receptacle driving means which displace the aforementioned jaw receptacle in the height position corresponding to height positional information based on the height positional information from this positional information sending-out means in ophthalmology equipment equipped with the jaw receptacle which fixes the face of the subject to the main part which has an optometry function.
[0007] The height positional information to which invention according to claim 2 is sent out from the aforementioned positional information sending-out means is chosen from adult information, small humanity news, the age information on the subject, and the face size information according to individual.
[0008]
[Function] An operation of the ophthalmology equipment of composition of having mentioned above is explained below.
[0009] The positional information sending-out means of this ophthalmology equipment sends out the height positional information to the main part of the jaw receptacle according to various subject. Jaw receptacle driving means displace the aforementioned jaw receptacle in the height position corresponding to height positional information based on the height positional information from a positional information sending-out means.
[0010] The position of the jaw receptacle before the subject puts a jaw on a jaw receptacle can be automatically set as a suitable position by this, and it becomes possible to attain shortening of easy-izing of initial setting before an optometry start, and optometry time.
[0011] Moreover, by choosing the aforementioned height positional information from adult information, small humanity news, the age information on the subject, and the face size information according to individual, the position of a jaw receptacle can be respectively set up according to the face size of an individual and an individual automatically the age exception of the subject the exception of an adult and a child in a suitable position, and it becomes possible to position the fine jaw receptacle according to various subject.
[0012]
[Example] The example of this invention is explained in detail below.
[0013] X as which the ophthalmology equipment 1 shown in drawing 1 or drawing 3 indicates in drawing 1 by operation of the operation handle 3 to the rectangular parallelepiped-like pedestal 2 and this pedestal 2, and the base 4 of a main part in which it attached possible [movement in the direction of Y], The main part 5 which has an optometry function, for example like auto reflex RAKUTO meter attached in the Z direction (perpendicular direction) possible [vertical movement] by rotation operation of the operation handle 3 to this base 4 of a main part, The detail carried in the aforementioned base 4 of a main part possesses the card reader 7 which constitutes a positional information sending-out means 8 to read the information on the control panel 6 which constitutes a positional information sending-out means 8 to mention later, and (Discernment ID) card C of the subject linked to the base 4 of a main part. The age information on the subject concerned and face size information (for example, size

information from the vertex-corneae point of an eye to the jaw bottom etc.) are recorded on selector-card C with the gestalt of for example, magnetic information.
[0014] Moreover, as shown in drawing 3 , the objective cylinder 9 equipped with objective lens 9a which stands face to face against the eye of the subject is provided in one end-face side of the aforementioned main part 5.
[0015] Furthermore, the aforementioned ophthalmology equipment 1 arranges the jaw receptacle 11 which lays the jaw of the subject ahead of one end face of a main part 5. That is, while attaching the side L-like jaw receptacle base material 12 in one end face of the aforementioned pedestal 2 and supporting the jaw receptacle 11 possible [vertical movement] to a Z direction in the center section of the up rectangular pipe 13 of this jaw receptacle base material 12, the frame reliance 15 for band-like subject is constructed between support 14a of the couple which protruded on the Z direction from the both ends of the up rectangular pipe 13, and 14b.
[0016] The jaw receptacle driving means 20 which drive the jaw receptacle 11 to a Z direction, and are positioned in the height position according to the subject are formed in the aforementioned up rectangular pipe 13.
[0017] The jaw receptacle motor 21 by which these jaw receptacle driving means 20 have arranged the driving shaft horizontally as shown in drawing 4 (for example, stepping motor), Separate a fixed interval to the 1st **** gearing 22 which attached in the driving shaft of this jaw receptacle motor 21, and this 1st **** gearing 22, and while carrying out opposite arrangement With the 2nd **** gearing 23 connected with the manual handle 25 prepared in the outside of the up rectangular pipe 13 through the connecting shaft 24 The follower body of revolution 28 which protruded on the upper part from the follower **** gearing 26 which screws in the 1st and 2nd **** gearing 22 and 23, and this follower **** gearing 26 and which ****s and consists of the body 27, Engagement projected part 11a which screwed in the aforementioned screw-thread object 27 the thread part which protruded caudad from the inferior surface of tongue of the aforementioned jaw receptacle 11, and was prepared in the inner circumference section, and the sensor (for example, infrared sensor) 29 which attached in the aforementioned support 14b in the state of countering the jaw receptacle 11 are provided.
[0018] A key, a number setting key, a print key, etc. are provided. the aforementioned control panel 6 is expanded to drawing 5 , and is shown -- as -- an adult key and a child -- Size L1 from the vertex-corneae point of an eye with an adult average when an adult key is pushed to the jaw bottom The shown height positional information is sent out. a child -- size L2 from the vertex-corneae point of an eye with a child average when a key is pushed to the jaw bottom The shown height positional information is sent out and the depression of a number setting key sends out number information, such as three persons and five etc. persons.
[0019] In addition, the aforementioned amount reliance 15 is operating the fine focus adjustment 35 which has attached through the connection rings 14c and 14d to the supports 14a and 14b of a couple, and was attached in one connection ring 14c, and can tune the frame reliance 15 finely to a Z direction.
[0020] Drawing 6 shows the control system of optometry equipment 1, possessed the control means 30 which consist of program memory 32 which stored the program of operation, and a control section 31 which performs the whole control, and has connected the aforementioned control panel 6 and the card reader 7 to the aforementioned control section 31.
[0021] moreover, the aforementioned control section 31 -- the system of the aforementioned jaw receptacle motor 21 and a sensor 29 of operation -- it carries out
[0022] Next, a setup of the height position of the jaw [operation / of optometry equipment 1] receptacle 11 according to the subject is mainly carried out, and it explains also with reference to drawing 7 .
[0023] For example, when the depression of the adult key of the aforementioned control panel 6 is carried out, a control panel 6 is the size L1 from the vertex-corneae point of a grown-up average eye to the jaw bottom. The shown height positional information is sent to a control section 31.
[0024] A control section 31 is a size L1. As the aforementioned jaw receptacle motor 21 is driven and ******** of the jaw receptacle 11 and the core of the aforementioned objective lens 9a show drawing 7 based on the shown height positional information, it is a size L1. It drives so that it may become. Namely, it is ****ed through the 1st **** gearing 22 and the follower **** gearing 26, is transmitted to the body 27, and the turning effort of the jaw receptacle motor 21 is carrying out the rotation drive of this screw-thread object 27, it displaces the jaw receptacle 11 to a Z direction, and ******** of the jaw receptacle 11 and the core of the aforementioned objective lens 9a are a size L1. It sets up so that it may become. At this time, the aforementioned sensor 29 is the grown-up height position P1 where detect ******** of the jaw receptacle 11, the jaw receptacle motor 21 stops by the control of a control section 31 based on the detection result of this sensor 29, and the jaw receptacle 11 is average. It is positioned.
[0025] on the other hand -- the child of the aforementioned control panel 6 -- if the depression of the key is carried out -- size L1 from the vertex-corneae point of a grown-up eye with an average control panel 6 to the jaw bottom The shown height positional information is sent to a control section 31.
[0026] The jaw receptacle 11 is a child's average height position P2 to the basis of the same operation as the case where it mentions above after this. It is positioned.
[0027] In positioning operation of the jaw receptacle 11 which was mentioned above by the number setting key of the aforementioned control panel 6 For example, if three adults, one child, the adult of many subject that examines the eyes in order of four adults, and a child are specified The jaw receptacle 11 is the height position P1 where an adult is average about three adults to the basis of the same operation as the case where it mentions above. It is positioned. Next, it is the height position P2 where a child is average about one child. If it is positioned and tears to four adults further, it is the grown-up average height position P1. It is positioned.
[0028] Moreover, apart from the operation mentioned above, when a card reader 7 is equipped with selector-card C of a certain subject, this card reader 7 reads the age information on the subject concerned currently recorded on this selector-card C, and face size information, and sends them to a control section 31 by making these into height positional information. The jaw receptacle 11 is the average height position P1 of the subject concerned to the basis of the same operation as the case where it mentions above after this. Or P2 It is positioned.
[0029] By such operation, the position of this jaw receptacle 11 before the subject puts a jaw on the jaw receptacle 11 can be automatically set as a suitable position, and it becomes possible to attain shortening of easy-izing of initial setting before an optometry start, and optometry time.
[0030] Moreover, by choosing the aforementioned height positional information from adult information, small humanity news, the age information on the subject, and the face size information according to individual, the position of the jaw receptacle 11 can be respectively set up according to the face size of an individual and an individual automatically the age exception of the subject the exception of an adult and a child in a suitable position, and it becomes possible to position the fine jaw receptacle according to

various subject.
[0031] Deformation various by within the limits of its summary besides the example mentioned above is possible for this invention.
[0032] For example, it is also possible for it to be made to carry out the variation rate of the jaw receptacle 11 which attached the touch sensor, detected that the frame of the subject touched the frame reliance 15 first, operated to the contact side with the frame of the aforementioned amount reliance 15, and lowered the aforementioned jaw receptacle driving means 20 to it candad beforehand based on this detection result until it contacts the jaw of the subject concerned.
[0033] By doing in this way, the jaw receptacle 11 can be set as the optimal position, without forcing it a posture with the subject impossible for.
[0034]
[Effect of the Invention] Since it considered as the composition mentioned above according to this invention explained in full detail above, the position of the jaw receptacle before the subject puts a jaw on a jaw receptacle can be automatically set as a suitable position, and the ophthalmology equipment which can attain shortening of easy-izing of initial setting before an optometry start and optometry time can be offered.
[0035] Moreover, by choosing the aforementioned height positional information from adult information, small humanity news, the age information on the subject, and the face size information according to individual, the position of a jaw receptacle can be respectively set up according to the face size of an individual and an individual automatically the age exception of the subject the exception of an adult and a child in a suitable position, and the ophthalmology equipment which can position the fine jaw receptacle according to various subject can be offered.

[Translation done.]

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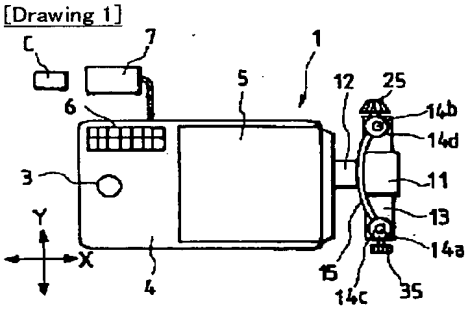
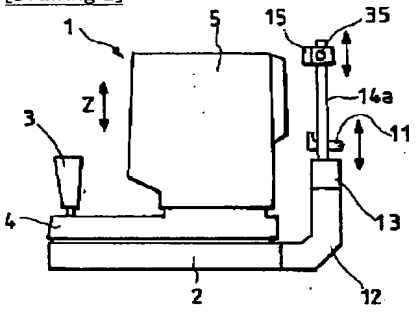
DRAWINGS

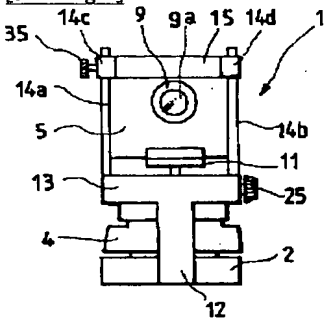
[Drawing 1]



[Drawing 2]



[Drawing 3]



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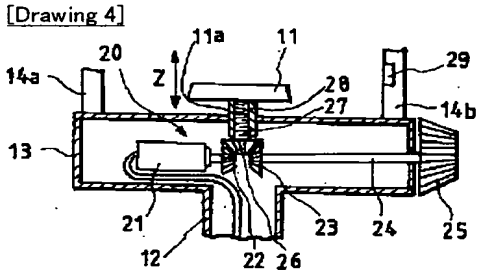

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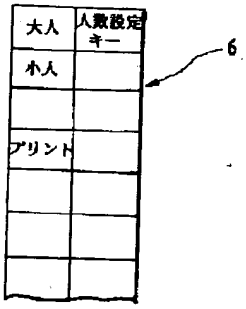

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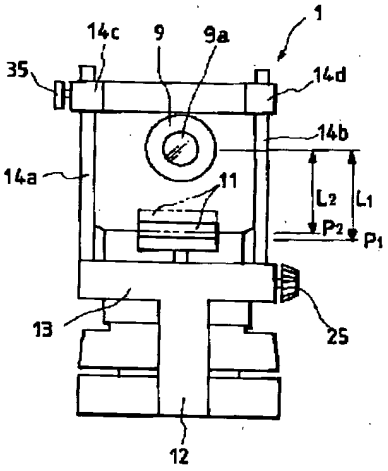
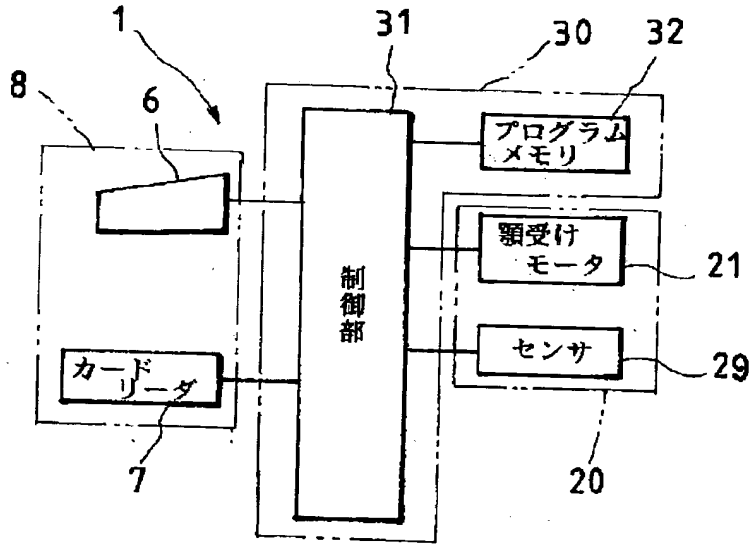


[Drawing 6]



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